

A Challenge to Fluoridation Promoters in Sonoma County

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Fluoride**ALERT**.org

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Provide the science that refutes the arguments herein – especially the studies cited in Part 2.

Outline of my presentation

1. Why fluoridation should not have started.
2. Key moments since 1990 when any rational decision-maker would have ended fluoridation.
3. Beyond Reason. The psychology of fluoridation promotion.

Part 1.

Why Fluoridation should
not have started

1. We shouldn't use the public water supply to deliver any medical treatment (lithium, statins or fluoride).
2. You can't control who gets the treatment.
3. You can't control the DOSE.
4. It violates the individual's right to informed consent to medical treatment (check AMA website for definition).

We are allowing communities
to do to everyone what an
individual doctor can do to
no one!

Fluoride is one of the worst
chemicals to force people
to drink

5) Fluoride is NOT a nutrient.

There is not a single process inside the body that needs fluoride to function properly, however

6) Fluoride is a known toxic substance that interferes with many fundamental biochemical functions

■ See Molecular mechanisms of fluoride toxicity by Barbier et al, 2010

- 7) 1 ppm fluoride (1 mg/liter) is NOT small. It is 250 times the level in mothers milk in a non-fluoridated community (0.004 ppm, NRC , 2006, p. 40)
- 8) A bottle-fed baby in a fluoridated community is getting 250 times the fluoride dose that nature intended.

Who knows more about what the baby needs, nature or the ADA?

9) The fluoridating chemicals used are not the pharmaceutical grade chemicals used in dental products, but are **arsenic-contaminated** industrial waste products.

According to the US EPA arsenic is a human carcinogen for which there is no safe level. That's why they set the MCLG for arsenic at ZERO.

We should not **KNOWINGLY** add **ANY** arsenic to the drinking water.

Part 2

Some of the events since
1990 which should have
forced an end to water
fluoridation

**"The great tragedy of science --
the slaying of a beautiful
hypothesis by an ugly fact."**

Aldous Huxley

The TEN ugly facts
that should have slain
the water fluoridation
hypothesis

Summary: 10 Ugly Facts That should have ended fluoridation

- 1) US NIDR survey shows little difference in tooth decay between children who have lived all their lives in a Non-fluoridated versus a Fluoridated communities (**Brunelle and Carlos, 1990**)
- 2) In several modern studies (1997-2001) tooth decay does not go up when fluoridation is stopped.
- 3) No relation found between tooth decay and amount of fluoride swallowed by children (**Warren, 2009**)

- 4) CDC concedes in 1999 that the predominant benefit of fluoride is TOPICAL not SYSTEMIC (**CDC, 1999**).
- 5) NRC (2006) report many harmful effects of fluoride and many unanswered safety questions. Subsets of population drinking fluoridated water are exceeding EPA's safe reference level, including bottle-fed babies (**NRC report available ONLINE**).

See Figure 2-8 on page 85
(NRC, 2006)

- **FIGURE 2-8** Estimated average intake of fluoride from all sources, at 1 mg/L in drinking water

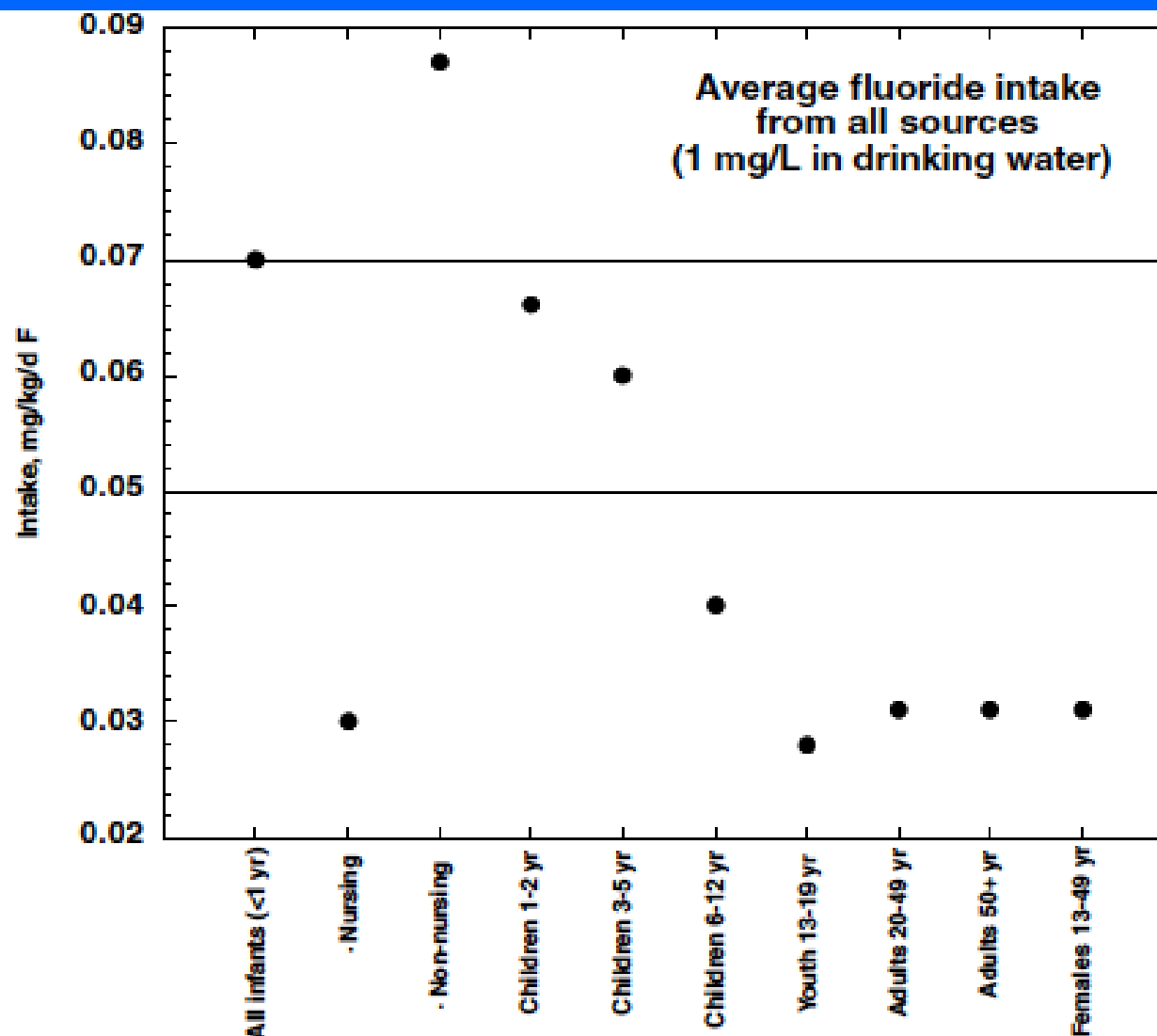


FIGURE 2-8 Estimated average intake of fluoride from all sources, at 1 mg/L in drinking water (based on Table 2-11). Horizontal lines indicate an intake of 0.05-0.07 mg/kg/day.

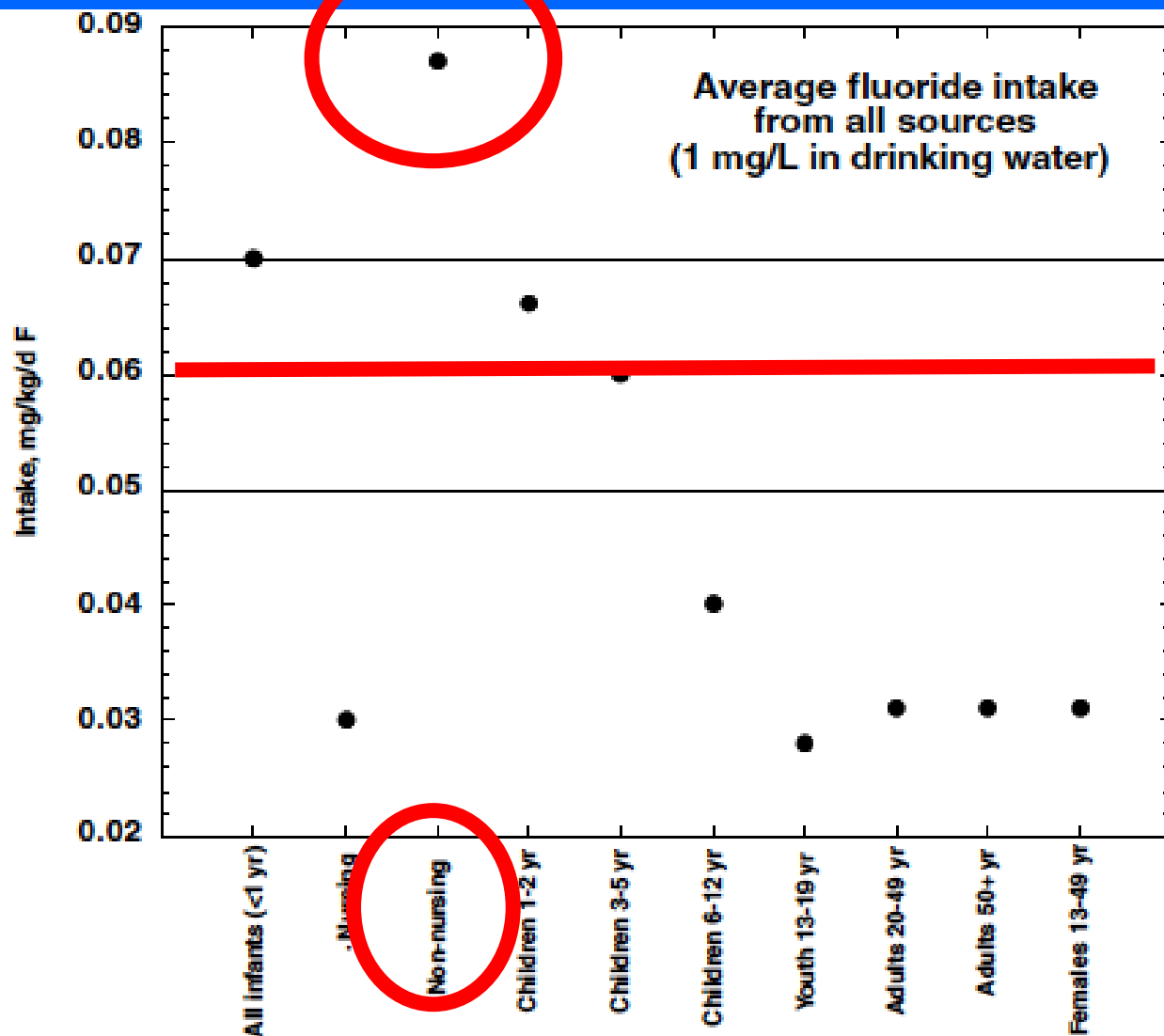


FIGURE 2-8 Estimated average intake of fluoride from all sources, at 1 mg/L in drinking water (based on Table 2-11). Horizontal lines indicate an intake of 0.05-0.07 mg/kg/day.

6) Fluoridation maybe killing a few young males (**Bassin, 2006**). This study has not been refuted.

The promised (2006) refutation from Bassin's thesis adviser (Professor Chester Douglass) when published in 2011 (Kim et al., 2011**) DID NOT REFUTE BASSIN'S THESIS.**

7) The CDC (2010) shows that American children are grossly over-exposed to fluoride. 41% of children aged 12-15 have dental fluorosis (CDC, 2010).

8) An extensive database of studies published since 1991 indicates that fluoride impacts the developing brains of both animals and humans..

Over 40 animal studies show that prolonged exposure to fluoride can damage the brain.

19 animal studies report that mice or rats ingesting fluoride have an impaired capacity to learn and remember.

12 studies (7 human, 5 animal) link fluoride with neurobehavioral deficits

3 human studies link fluoride exposure with impaired fetal brain development

37 out of 43 published studies show that fluoride lowers IQ

To access any of these brain studies

- 1) Go to FluorideALERT.org**
- 2) Click on RESEARCHERS**
- 3) Click on Health Data Base**
- 4) Click on Brain Effects**

Or go direct to

**FluorideALERT.org/issues/health/
brain**

9) There is **NO ADEQUATE MARGIN OF SAFETY** to protect ALL children drinking fluoridated water from lowered IQ (**Xiang et al., 2003 a and b**).

- Xiang estimated that the **threshold** for lowering IQ was at **1.9** ppm fluoride in the water
- This offers no adequate margin of safety to protect **all** American children from 1) the large range of doses and 2) large range of sensitivity expected in a large population

10) A review from Harvard University made the IQ studies visible to Western scientists.

The Harvard review

- Choi et al (the team included Philippe Grandjean) did a meta-analysis of 27 studies comparing IQ in “high” versus “low” fluoride villages .
- The study was published in *Environmental Health Perspectives* (published by National Institute of Environmental Health Sciences NIEHS)

Harvard meta-analysis of 27 studies

- The Harvard team acknowledged that there were weaknesses in many of the studies, however...

- ...noted that the results were remarkably consistent
- In *26 of the 27 studies* there was lower average IQ in the “high” versus low-fluoride villages.
- Average IQ lowering was **about 7 IQ points**.

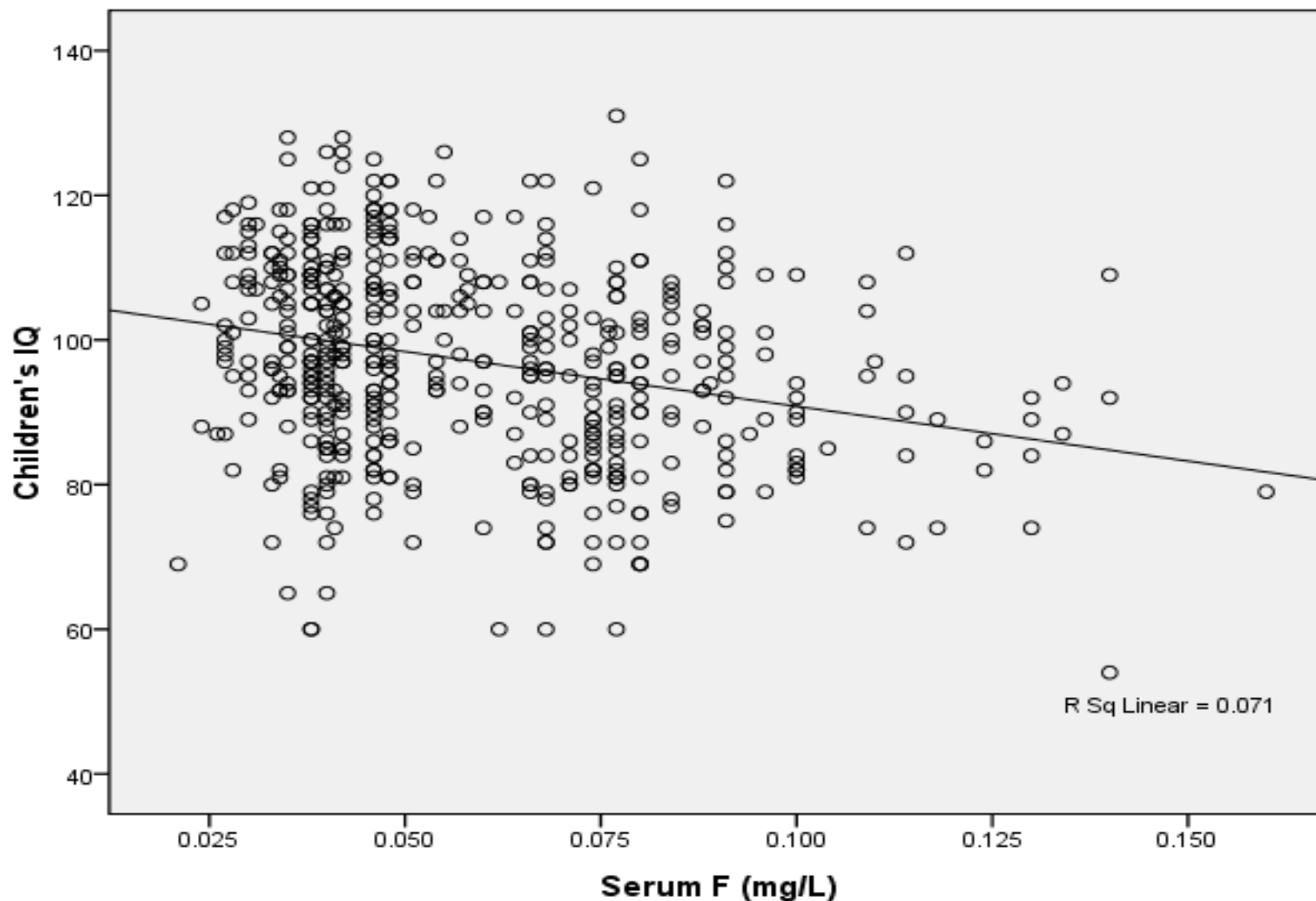
PLEASE NOTE:

The evidence that fluoride lowers IQ is stronger than the population studies (comparing high and low fluoride villages) imply...

11 of the 37 IQ studies found an association between lowered IQ and fluoride levels in the urine

Xiang finds an association between
lowered IQ and PLASMA fluoride
levels

Xiang et al., 2011

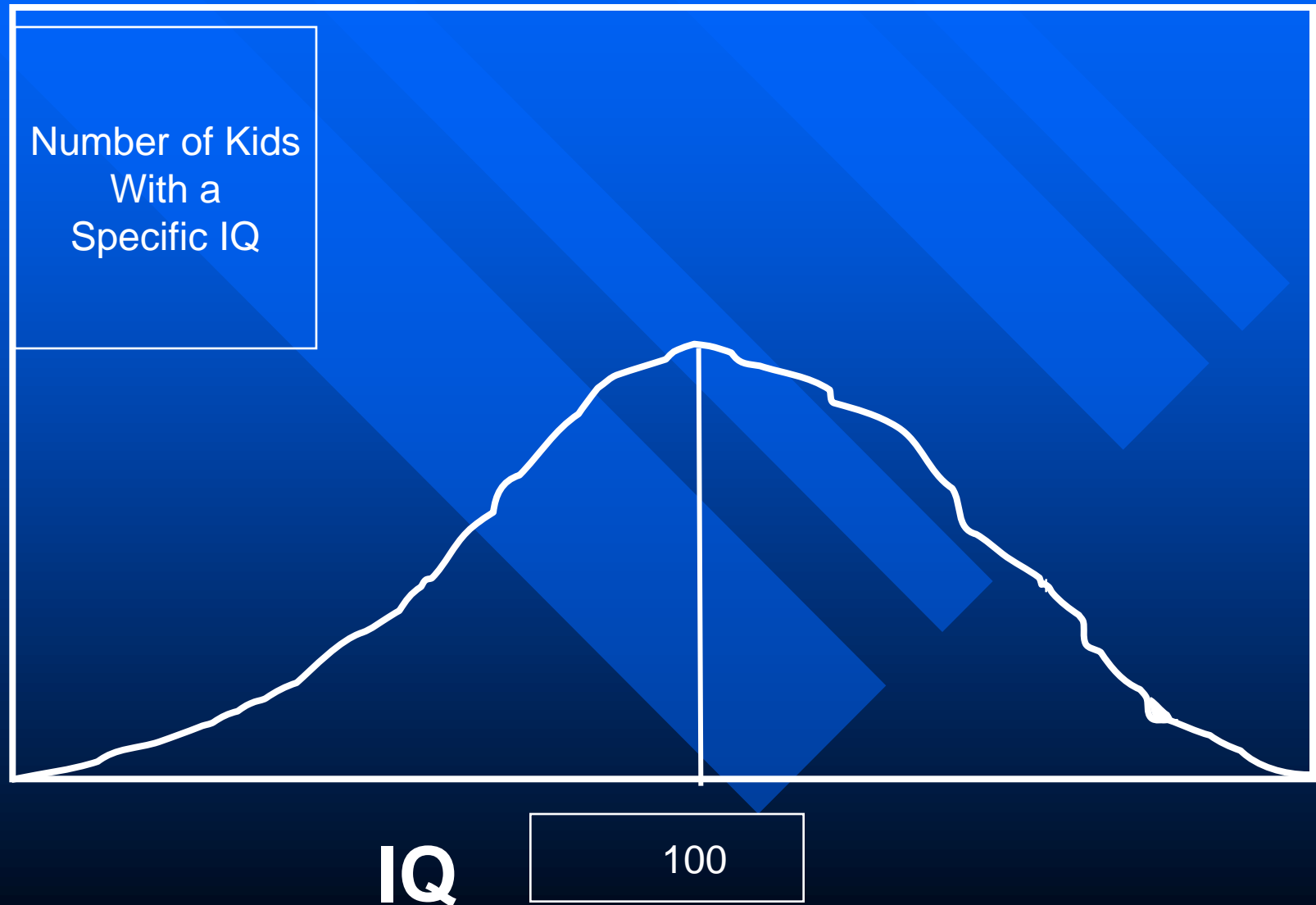


Xiang (2012). Children's IQ versus Levels of fluoride in the serum (children from both villages combined, personal communication with Paul Connett) . The higher the levels of fluoride in the plasma the lower the levels of IQ.

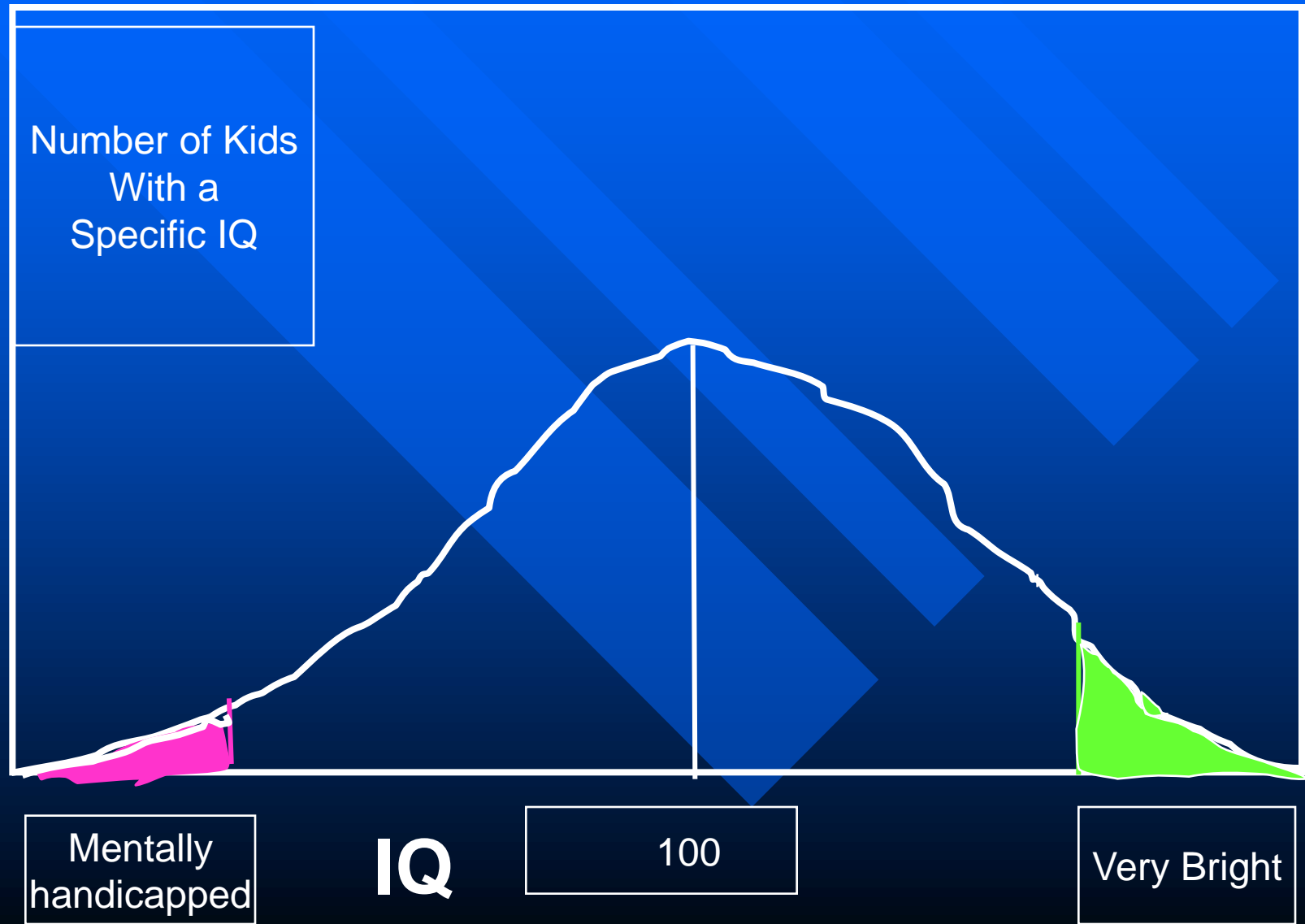
Dr. Philippe Grandjean

“Fluoride seems to fit in with lead, mercury, and other poisons that cause chemical brain drain. The effect of each toxicant may seem small, but the combined damage **on a population scale** can be serious, especially because the brain power of the next generation is crucial to all of us.” (**Harvard Press Release**)

IQ and population



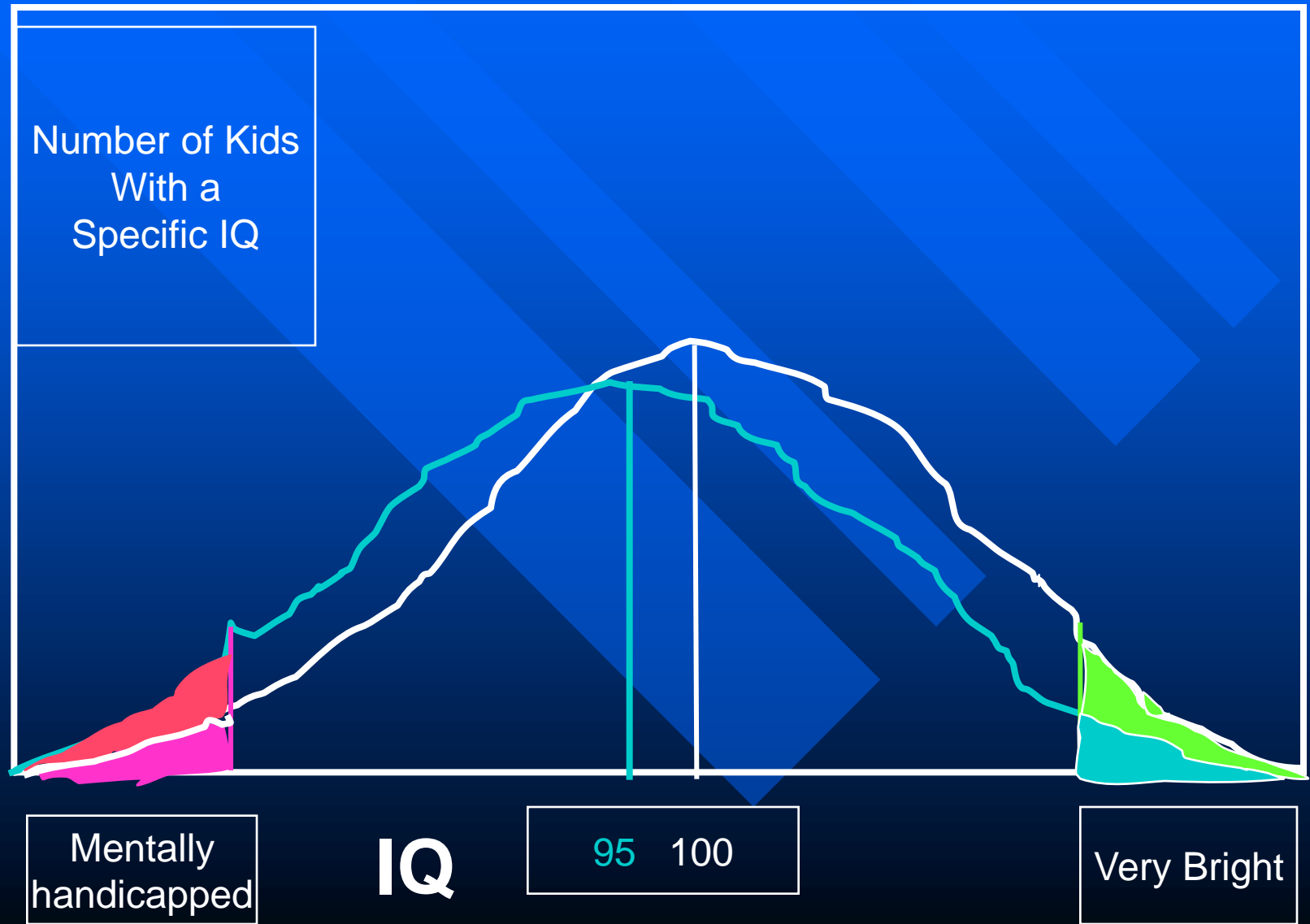
IQ and population



IQ and population



IQ and population



What rational person would take such a risk to achieve a questionable reduction in tooth decay which can be achieved by other means?

But the promotion of
fluoridation is not based on
rational argument or
Science

Part 3.

The psychology of fluoridation promotion.

Promoters are in a state of denial

1. Professionals are often reluctant to abandon a paradigm
2. Bureaucrats unwilling to challenge policy
3. Dentists proud of fluoridation
4. Fluoridation has given prestige to dentistry
5. Need to protect research funding
6. Need to protect credibility (need to protect other public health policies)
7. Concerns about liabilities

End Result:

Promoters are working backwards

1. Any study that finds harm or questions effectiveness is junk science
2. Any scientist that questions fluoridation is suspect or unqualified
3. Any citizen who questions fluoridation is a conspiracy theorist

The promoters are defending a policy not public health. Most are true believers but others are prepared to use any political device or PR trickery to defend and promote the practice.

Promoters' tactics

1. Use “authority” not rational argument or science e.g. endorsements.

American Dental Association White Paper – 1979 On Fluoridation

Excerpt, Pg. 10-11

“Individual dentists must be convinced that they need not be familiar with scientific reports of laboratory and field investigations on fluoridation to be effective participants in the promotion program and that nonparticipation is overt neglect of professional responsibility.”

Promoters' tactics

2. Denigrate opponents in order to embarrass would be participants

The intention of both 1 and 2 is to keep scientists, the media and the public away from the primary literature

Michael Easley DDS, MPH

- “Unfortunately, a most **flagrant abuse of the public trust** occasionally occurs when a physician or a dentist, **for whatever personal reason**, uses their professional standing in the community to argue against fluoridation, **a clear violation of professional ethics, the principles of science and community standards of practice.**” (Easley, 1999)

Ernest Newbrun, DMD,
PhD, Professor Emeritus
University of California
San Francisco, on
opponents of fluoridation
(slides taken from a power point presentation
delivered in January 2007)

Top reasons why opponents do not like community fluoridation

- It's too hard to spell
- It doesn't have that fresh mint taste like the one you get at the dentist
- Who needs fluoride, we're all going to wear dentures anyway
- Somebody's got to stop these 61 year-old newfangled ideas
- 37 thousand studies is not enough information to make a decision
- A little suffering is good for your character
- They don't like to use the F word

Antifluoridation types

- right-wing extremists
- misguided environmentalists (Greens)
- chiropractors
- elderly concerned about costs
- food faddists
- anti-science naturalists
- self-proclaimed neutrals
- born-again antifluoridationists

What motivates the opponents?

- fluorophobia: health hazard
- sin and punishment: bad dieters deserve rotten teeth
- oppose government intervention in health care
- paranoia: belief in government/ industry/health professional conspiracy
- instant recognition -fame or notoriety

Promoters' tactics

3. **Capture** newspaper editors behind closed doors with one side of the story.
4. **Bully** politicians (e.g. Pinellas County, FL; Lissmore, NSW; Brooksville, FL and Hamilton, NZ)

Promoters' tactics

5. **Refuse** to debate leading opponents of fluoridation, while continuing to attack their credibility!

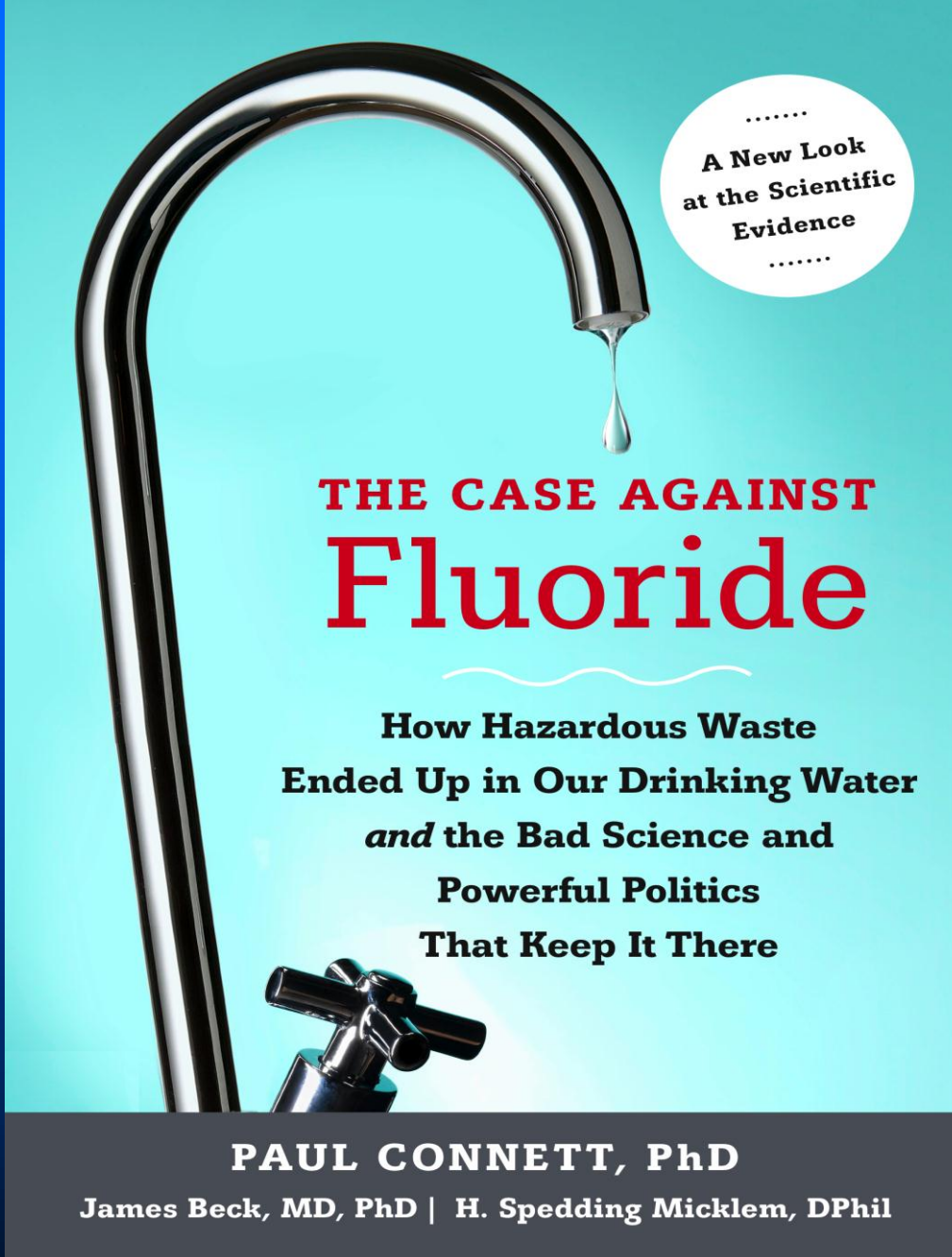
Michael Easley DDS, MPH

“Debates give the illusion that a scientific controversy exists when no **credible** people support the **fluorophobics**’ view,

- “Like **parasites**, opponents steal **undeserved credibility** just by sharing the stage with **respected** scientists who are there to defend fluoridation.”

Promoters' tactics

6. **Ignore** fully documented critiques of fluoridation (e.g. *The Case Against Fluoride*).



Book published
by Chelsea Green

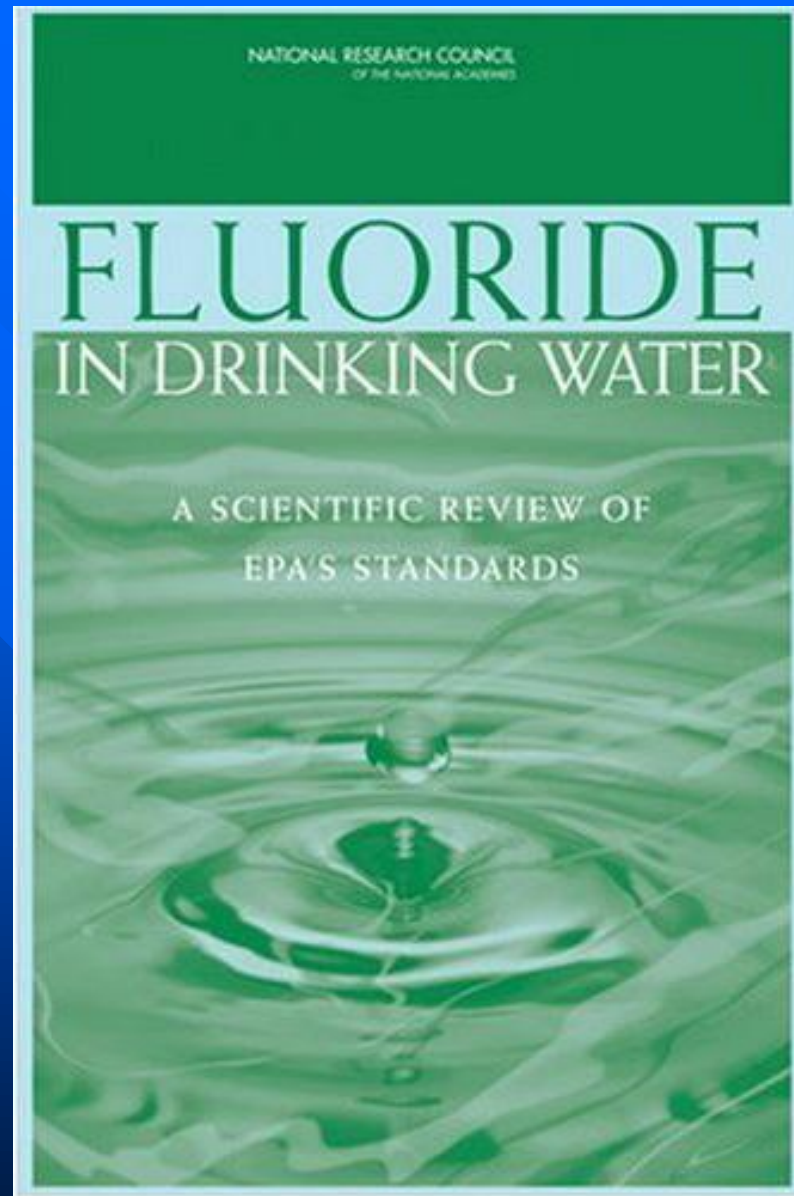
October, 2010

Can be ordered
on Amazon.com

Contains
80 pages
of references
to the
Scientific
literature

Promoters' tactics

7. Trivialize key reviews
(e.g. NRC, 2006).



National Research Council (2006)

Promoters' tactics

8. **Hand pick** pro-fluoridation panels to rubber stamp fluoridation (Irish Fluoridation Forum, 2002; Australian NHMRC, 2007 and Health Canada, 2011).

Health Canada chose 6 experts to review the fluoridation literature – **FOUR** of them were pro-fluoridation dentists!

Promoters' tactics

9. **Fail miserably** to conduct key health studies in fluoridated countries and then declare there is no evidence of harm!

Dr. Peter Cooney

- Dr. Peter Cooney, the Chief Dental Officer of Canada, told an audience in Dryden, Ontario (April 1, 2008),
- “I walked down your High Street today, and I didn’t see anyone growing horns, and you have been fluoridated for 40 years!”

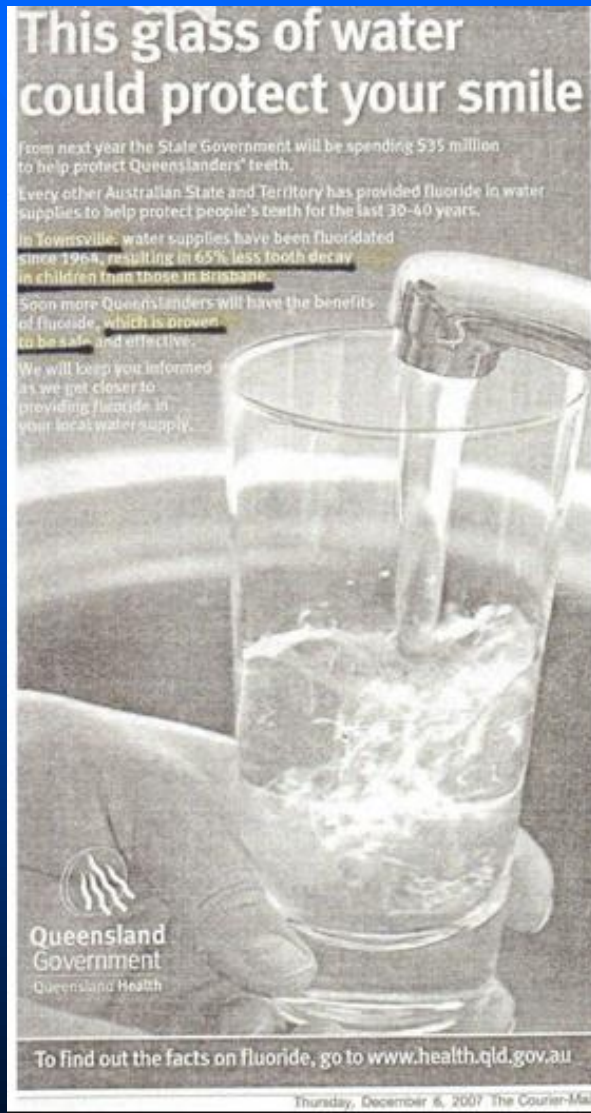
Promoters' tactics

10. Spend millions of taxpayers' money on outrageous PR trickery.

Queensland Health's promotion of “mandatory” statewide fluoridation) (2007)

Queenslanders were told
Fluoridated Townsville has
65% less tooth decay than
Non-Fluoridated Brisbane


Qld Health “results - 65 % less tooth decay”



This glass of water could protect your smile

From next year the State Government will be spending \$35 million to help protect Queenslanders' teeth. Every other Australian State and Territory has provided fluoride in water supplies to help protect people's teeth for the last 30-40 years. In Townsville, water supplies have been fluoridated since 1964, resulting in 65% less tooth decay in children than those in Brisbane.

Soon more Queenslanders will have the benefits of fluoride, which is proven to be safe and effective. We will keep you informed as we get closer to providing fluoride in your local water supply.


Queensland Government
Queensland Health


To find out the facts on fluoride, go to www.health.qld.gov.au


Thursday, December 6, 2007 The Courier-Mail

- *“In Townsville, water supplies have been fluoridated since 1964, resulting in 65% less tooth decay in children than those in Brisbane”*
- *“fluoride, which is proven to be safe and effective”*

Qld Health newspaper ads Dec 2007

How did they get the 65% less decay ?

Table 4: Caries experience (decayed, missing or filled surfaces) in the permanent dentition 

Age (years)	n	Townsville DMFS ^a		n	Brisbane DMFS ^a		Difference		Prevalence	
		Mean	SD ^b		Mean	SD ^b	%	Absolute	Townsville	Brisbane
6	300	0.04	0.23	472	0.10	0.54	60	0.06	4	4
7 	240	0.09	0.37	440	0.26	0.83	65	0.17	6	13
8	262	0.25	0.68	375	0.52	1.09	52	0.27	15	26
9	226	0.41	0.93	403	0.51	1.05	20	0.10	24	26
10	205	0.57	1.10	387	1.13	1.96	50	0.56	29	42
11	188	0.65	1.26	370	1.45	2.25	55	0.80	31	48
12	69	0.94	1.63	205	1.80	2.79	48	0.86	36	54

Note: (a) DMFS = number of decayed, missing or filled surfaces per child. (b) SD = standard deviation

$$0.26 - 0.09 = 0.17 \text{ DMFS}$$

$$0.17/0.26 \times 100 = 65\%$$

fewer tooth surfaces decayed

An absolute saving of 0.17 of
one tooth surface in 7 year
olds!

This was an atrocious
example of “cherry picking”
the data

Table 4: Caries experience (decayed, missing or filled surfaces) in the permanent dentition ←

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Note: (a) DMFS = number of decayed, missing or filled surfaces per child. (b) SD = standard deviation



***“Teeth exposed to
fluoridated water”***
Qld Health 2007



***“Teeth exposed to
fluoridated water”***
Qld Health 2007



***“Teeth without exposure
to fluoridated water”***
Qld Health 2007

In the US we have the
CDC, Pew Charitable
Trust and the ADA
spending millions of
dollars on PR
promoting fluoridation

In May 2013, Portland Oregon voted 61% to 39% to reject fluoridation despite being outspent 3 to 1.

The promoters spent nearly \$1 million – which included paying several groups \$20,000 for their support!

FAN's goal is to continue to
educate as many people as
we can calmly, accurately
and scientifically

We have to stop fluoridation
one open mind and one
community at a time

These teleconferences
are another important
step in that direction

The background features a blue gradient that transitions from a lighter blue at the top to a darker blue at the bottom. Overlaid on this gradient are several parallel diagonal stripes in a slightly darker shade of blue, running from the top-left towards the bottom-right.

Thank You

The background is a solid blue color with several diagonal stripes of a slightly lighter shade of blue running from the top-left towards the bottom-right.

Questions?

Communities ending fluoridation

Communities that have stopped or rejected fluoridation in 2008

19 communities over
950,000 people

Communities that have stopped or rejected fluoridation in 2009

4 communities over
140,000 people

Communities that have stopped or rejected fluoridation in 2010

8 communities over
129,000 people

Communities that have stopped or rejected fluoridation in 2011

33 communities over 1.9
million people

Communities that have stopped or rejected fluoridation in 2012

26 communities over
780,000 people

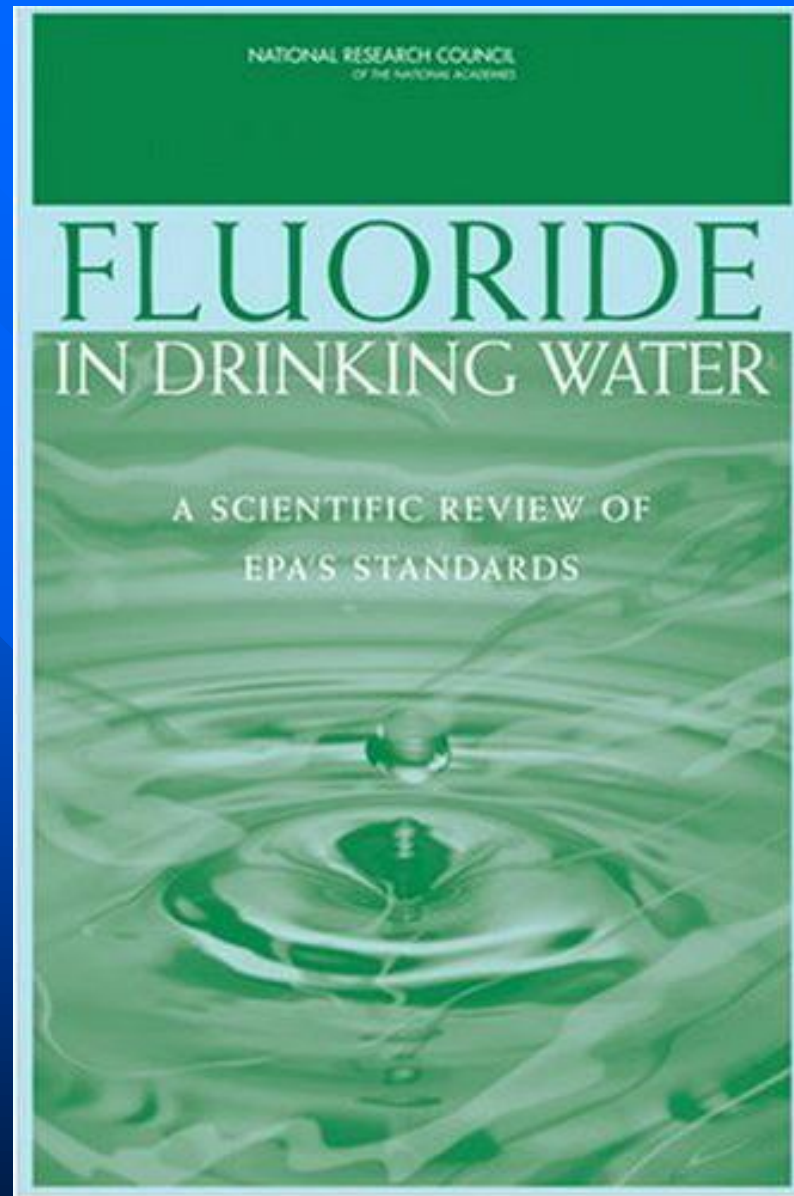
Communities that have stopped or rejected fluoridation in 2013

52 communities over
2,000,000 people

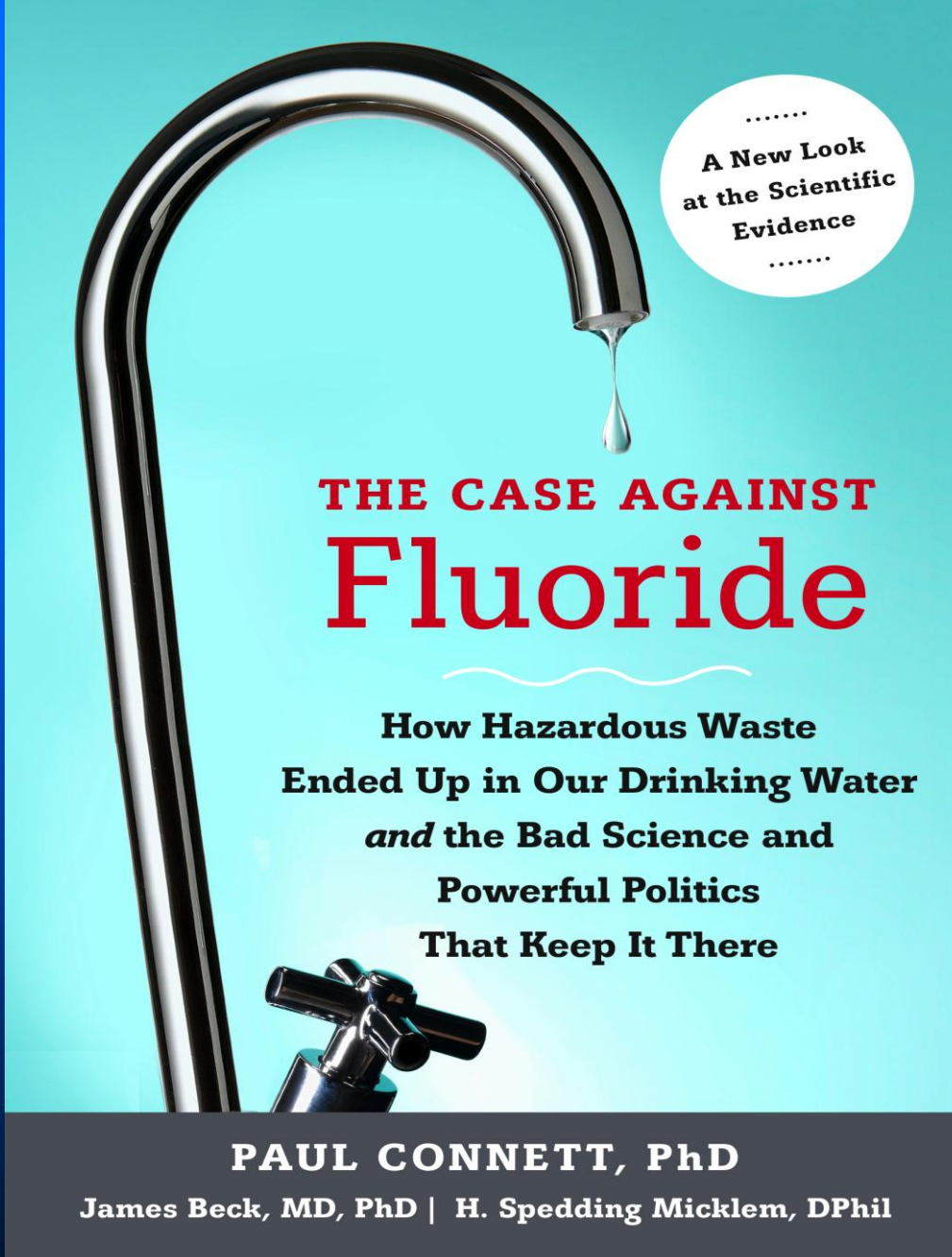
1. Nov 2012, **Queensland**
lifted mandatory requirement

2. April 2013, **Israel** MOH
announces lifting of
mandatory requirement in one
year

RESOURCES



National Research Council (2006)



Book published
by Chelsea Green

October, 2010

Can be ordered
on Amazon.com

Contains
80 pages
of references
to the
Scientific
literature

Please watch the
29 minute DVD

“Professional Perspectives
on Fluoridation”

Can be viewed ONLINE at
www.FluorideALERT.org

Please watch the
20 minute DVD
“TEN FACTS on FLUORIDE”
PLUS BOOKLET
at
www.FluorideALERT.org